



**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 52**

**[EPA-R05-OAR-2010-0954 and EPA-R05-OAR-2010-0037; FRL9901-31-  
Region 5]**

**Approval and Promulgation of Air Quality Implementation Plans;  
States of Michigan and Minnesota; Regional Haze**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** In this notice of final rulemaking, EPA is disapproving in part the Michigan and Minnesota regional haze State Implementation Plans (SIPs) for failure to mandate best available retrofit technology (BART) for taconite facilities within these states. This final rule supplements a February 6, 2013, action that established Federal emission limits representing BART for these facilities.

**DATES:** This final rule is effective on [INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** EPA has established dockets for this action under Docket ID Numbers EPA-R05-OAR-2010-0954 and EPA-R05-OAR-2010-0037. All documents in the dockets are listed on the [www.regulations.gov](http://www.regulations.gov) web site. Although listed in the index, some information is not publicly available, i.e., Confidential Business Information (CBI) or other information whose disclosure

is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through [www.regulations.gov](http://www.regulations.gov) or in hard copy at the Environmental Protection Agency, Region 5, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. This facility is open from 8:30 AM to 4:30 PM, Monday through Friday, excluding Federal holidays. We recommend that you telephone Steven Rosenthal, Environmental Engineer, at (312) 886-6052 before visiting the Region 5 office.

**FOR FURTHER INFORMATION CONTACT:** Steven Rosenthal, Environmental Engineer, Attainment Planning and Maintenance Section, Air Programs Branch (AR-18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 886-6524, [rosenthal.steven@epa.gov](mailto:rosenthal.steven@epa.gov).

**SUPPLEMENTARY INFORMATION:** Throughout this document whenever "we," "us," or "our" is used, we mean EPA. This supplementary information section is arranged as follows:

- I. What Is the Background for this Action?
- II. What Are EPA's Responses to the Public Comments It Received?
- III. What Action Is EPA Taking?

#### IV. Statutory and Executive Order Reviews.

##### **I. What is the Background for this Action?**

Minnesota submitted its regional haze SIP on December 30, 2009, a draft supplement on January 5, 2012, and a final supplemental submission on May 8, 2012. EPA proposed approval of the Minnesota regional haze SIP on January 25, 2012 (77 FR 3681). Among other actions, the proposed rule proposed to conditionally approve Minnesota's regional haze SIP as satisfying the BART requirements of the Clean Air Act (CAA or the "Act") section 169A(b)(2)(A) and 40 CFR 51.308(e) for the State's six taconite plants, provided that Minnesota submit emission limits representing BART prior to EPA's final action. During the comment period on EPA's proposed rule, EPA received comments providing evidence that better, cost-effective technology for the control of taconite plant emissions was available that Minnesota (and Michigan) failed to adequately consider in the SIP revision. Therefore, EPA published a final rule approving other aspects of the Minnesota regional haze SIP on June 12, 2012 (77 FR 34801), but deferred action on BART for Minnesota's taconite facilities.

Michigan submitted its regional haze SIP on November 5, 2010. EPA proposed action on the Michigan regional haze SIP on August 6, 2012 (77 FR 46912). In this action, EPA proposed to

approve several aspects of Michigan's regional haze SIP, and proposed to disapprove Michigan's BART determinations for a Portland cement plant and a paper mill and proposed Federal limits for those two facilities. EPA published final action pursuant to this proposal on December 3, 2012 (77 FR 71533). However, similar to Minnesota, EPA deferred action on BART for the Tilden Mining taconite facility in Michigan.

On August 15, 2012 (77 FR 49308), EPA published a proposed partial disapproval and Federal Implementation Plan (FIP) for BART for taconite plants in Minnesota and Michigan. In that action, EPA reviewed relevant information regarding the technical feasibility of various options for the control of emissions from taconite plants and reviewed other information relevant to determining BART for these plants. On February 6, 2013 (78 FR 8706), EPA published a final rule establishing a FIP to implement BART for the taconite facilities in Minnesota and Michigan.

Also on February 6, 2013 (78 FR 8478), EPA supplemented its proposed partial disapproval of the Minnesota and Michigan SIPs for failure to require BART for taconite facilities within these states. EPA published this notice in response to comments that EPA had not adequately explained its rationale for

proposing to disapprove the States' BART determinations for taconite in its August 15, 2012 proposed action.

## **II. What are EPA's Responses to the Public Comments It Received?**

In response to its supplemental proposed rulemaking, EPA received comments from ArcelorMittal Minorca Mine, Incorporated (ArcelorMittal), Cliffs Natural Resources, Inc. (Cliffs), U.S. Representative Richard M. Nolan, the Minnesota Pollution Control Agency (MPCA), the National Mining Association (NMA), and the Michigan Department of Environmental Quality (MDEQ). The following discussion provides a summary of the comments and EPA's responses. The comments by ArcelorMittal are essentially identical to the comments from Cliffs, except that they do not refer to taconite-related issues in Michigan. Unless a comment by Cliffs is regarding taconite-related issues in Michigan, a comment ascribed to Cliffs is also from ArcelorMittal.

### **A. Comments by Cliffs and/or ArcelorMittal**

**Comment:** The CAA gives primary authority for regional haze determinations to the states. States are responsible for developing and implementing the regional haze program. States are responsible for identifying BART-eligible sources, defining BART for each source, establishing reasonable progress goals, and developing long-term strategies to reduce regional haze in class I Federal areas.

The D.C. Circuit affirmed the primacy of states in implementing the regional haze program in *American Corn Growers Ass'n v. EPA*, 291 F.3d 1 (D.C. Cir. 2002). There, the court confirmed the primacy of state authority in this area by invalidating EPA's regulations on the grounds that they impermissibly constrained state authority. EPA has only a limited role in evaluating regional haze SIPs because the CAA calls for states to play the lead role in implementing the regional haze program. EPA has conceded as much by acknowledging that states retain the primary responsibility of developing a viable visibility program and states must determine the appropriate level of BART control for each source subject to BART.

**Response:** Section 110 of the CAA requires states to develop SIPs with enforceable emission limitations and other control measures to meet the applicable requirements of the Act. A state must then submit its SIP to EPA for approval. Congress crafted the Act to provide for states to take the lead in developing SIPs, but balanced that decision by requiring EPA to review the SIPs to determine whether a given SIP meets all applicable requirements of the Act. See CAA sections 110(k)(3) and (1).

The D.C. Circuit's decision in *American Corn Growers* did

not alter this balance. The court's decision there was limited to a holding that EPA could not require states to evaluate the first four BART factors on a source-specific basis, while requiring states to evaluate visibility improvement on a group-wide basis. In contrast, the Tenth Circuit recently affirmed EPA's authority to evaluate regional haze SIPs for compliance with all requirements of the Act, including the visibility protection provisions in section 169A and EPA's implementing regulations at 40 CFR 51.300-51.309 and 40 CFR pt. 51, app. Y. *See Oklahoma v. EPA*, \_\_ F.3d \_\_ (10th Cir. 2013). As discussed in our February 6, 2013, supplemental proposed disapproval, and in the response to comments in this final disapproval, EPA has determined that, while it agrees with Minnesota and Michigan's identification of BART-eligible sources, we find that the states did not satisfy the requirements for BART for the taconite facilities.

**Comment:** EPA rushed to issue a FIP, apparently leaving EPA without enough time to explain to the states how their SIPs were deficient. Only now, after finalizing its FIP, does EPA stop to "take comments" on the basis for its proposed disapproval of the SIPs, which is a sham that offers no real opportunity for commenters to influence the outcome of the regional haze process already determined by the FIP. EPA should stay the FIP until it

properly considers public comments on its basis for disapproving the SIPs.

**Response:** In its comments dated September 28, 2012, addressing EPA's August 15, 2012, proposed action, Cliffs commented that "EPA's Proposed Rule does not discuss the validity of the extensive factual information and technical analysis underlying Minnesota's and Michigan's BART determinations," and that "EPA was forcing the public and the States to guess at what EPA believes was wrong with Minnesota's and Michigan's SIP submittals." In other words, Cliffs commented in September 2012 that EPA needed to provide a more extensive explanation of its basis for proposing to disapprove Minnesota and Michigan's BART determinations for taconite facilities, but now believes that the opportunity EPA has provided is rendered meaningless by the promulgation of EPA's FIP in February 2012.

We disagree. As explained in the final rule promulgating the FIP, EPA's FIP obligation following a finding of failure to submit remains in effect, irrespective of a subsequent state SIP submittal, unless and until EPA approves the SIP. See CAA section 110(c). A FIP is a gap-filling measure only, however. See CAA section 302(y). As a result, a FIP promulgated by EPA remains in place only until a state submits a SIP correcting the inadequacy and that SIP is approved by EPA. In this instance,



Cliffs and other commenters had a meaningful opportunity to comment on EPA's supplemental proposed disapproval and explain why EPA's proposed action was incorrect. Had EPA agreed with Cliffs or other commenters and approved the Minnesota and Michigan BART determinations for taconite facilities instead, EPA's FIP would have been replaced. Therefore, Cliffs' assertions are incorrect. Nevertheless, we note that Cliffs' request for a stay is now moot because the Eighth Circuit has already granted such a stay.

**Comment:** EPA has a limited role in the regional haze process and therefore must defer to state determinations that meet minimum requirements. EPA's role in the regional haze program is limited to approving or disapproving SIPs submitted by the states, and EPA has limited discretion to disapprove a SIP, as outlined by CAA section 110(k).

The Minnesota SIP was deemed complete on June 30, 2010, and the Michigan SIP was deemed complete on May 5, 2011. Once a SIP is deemed complete, EPA has 12 months to act on it and "shall approve such submittal as a whole if it meets the applicable requirements . . ." EPA's role is limited to the ministerial function of reviewing SIPs for consistency with the Act's requirements.

**Response:** The commenters are correct with respect to the

schedule in CAA section 110(k). However, nothing in this section states, or even implies, that EPA must automatically approve a SIP within 12 months after a SIP is deemed complete. Further, this section states that EPA shall only approve a SIP if it meets all of the applicable requirements of the Act. While Congress intended states to take the lead in developing regional haze SIPs, it balanced that decision by requiring EPA to review the states' SIPs to determine whether they meet the applicable requirements of the Act. EPA's review is not limited to the ministerial function of rubber-stamping a state's decisions. Rather, in reviewing regional haze SIPs in general and BART determinations in particular, EPA must consider not only whether the state considered the appropriate factors, but also whether the state acted reasonably in doing so. In undertaking such a review, EPA does not "usurp" the state's authority, but ensures that such authority is reasonably exercised.

**Comment:** Contrary to EPA's belief, the Ninth Circuit's decision in *Sierra Club v. EPA*, 671 F.3d 955 (9th Cir. 2012), does not authorize the Agency to disapprove a complete SIP every time new information becomes available. The Ninth Circuit's decision rests heavily on CAA section 172(c)(3)'s requirement that nonattainment plans include a comprehensive, accurate, current

inventory of actual emissions. No such provision exists in CAA section 169A, which governs regional haze. Rather, EPA is on record instructing states conducting BART determinations that "technologies should be considered if available before the close of the State's public comment period" and that they "need not consider technologies that became available after this date." That is precisely what Minnesota and Michigan did, and EPA cannot use a decision from a different jurisdiction based on different statutory language to change course now that it prefers a different result. Rather, as the D.C. Circuit has held, "[t]o require states to revise completed plans every time" new information arises "would lead to significant costs and potentially endless delays in the approval process." *Sierra Club v. EPA*, 356 F.3d 296, 08 (D.C. Cir. 2004).

**Response:** EPA disagrees about the scope of the Ninth Circuit's decision, which states that EPA should evaluate any new information available and "may not simply ignore it without reasoned explanation or choice." *Sierra Club*, 671 F.3d at 967. The Ninth Circuit does not couch this statement narrowly in the context of EPA's review of nonattainment plan inventories, but rather presents it broadly as a principle of administrative law. Indeed, the Ninth Circuit's full holding states: "But we should not silently rubber stamp agency action that is arbitrary and

capricious in its reliance on old data without meaningful comment on the significance of more current compiled data. We hold that EPA's failure to even consider the new data and to provide an explanation for its choice rooted in the data presented was arbitrary and capricious." *Id.* at 968.

Irrespective of the significance of *Sierra Club v. EPA*, however, Cliffs mischaracterizes the technical feasibility provisions of the BART Guidelines. The statement there that a state need not consider technologies that are not commercially available by the end of the state's public comment period for its SIP bears no relation to the question of whether a technology that has been commercially available for decades, such as low NO<sub>x</sub> burners, is applicable to a specific source. Furthermore, even if Cliffs' incorrect reading of the BART Guidelines were correct, both Minnesota and Michigan were aware that low NO<sub>x</sub> burners had been successfully applied to taconite furnaces before the ends of their respective public comment periods. In a June 23, 2010, letter to Michigan regarding the state's draft regional haze SIP, EPA commented that "a low NO<sub>x</sub> main burner firing solid fuels" had been installed at Minntac and that "work done by other companies had demonstrated that burner designs that lower flame temperature can reduce NO<sub>x</sub> formation in taconite furnaces." Similarly, in a February 10,

2012, letter to Minnesota responding to the state's draft regional haze SIP supplement for taconite facilities, EPA explained in detail that "U.S. Steel has demonstrated the development and use of low NO<sub>x</sub> main burners that achieve 70 percent NO<sub>x</sub> reduction on its indurating lines." Therefore, both States were well aware that low NO<sub>x</sub> burners had been successfully applied to indurating furnaces. The states did not provide reasonable explanations for dismissing this information and instead continued to rely on the taconite facilities' cursory and unsupported determinations from 2006 that low NO<sub>x</sub> burners were technically infeasible.

**Comment:** Even if EPA legitimately determines that a SIP does not meet the minimum criteria for approval after giving states appropriate deference, EPA's actions remain proscribed by the Act. Section 110(c) permits EPA to issue a FIP "unless the state corrects the deficiency" EPA identified. Had EPA followed the procedure required by the Act and addressed the States' SIPs prior to issuing a FIP, any perceived issues could have been resolved.

**Response:** This comment addresses EPA's final rule promulgating the FIP and not EPA's supplemental proposed disapproval and is therefore not relevant to this rulemaking. Nevertheless, we point out that Cliffs fails to cite the full text of CAA section

110(c)(1), which states that EPA "shall promulgate a [FIP] at any time within 2 years . . . unless the State corrects the deficiency, and the Administrator approves the plan or plan revision, before the Administrator promulgates such [FIP]."

Thus, the plain language of the Act requires SIP approval, not merely SIP submission, before EPA's FIP authority is tolled.

**Comment:** EPA can disapprove a SIP only where it fails to meet minimum CAA requirements. In the case of regional haze, the CAA required Minnesota and Michigan to weigh the five statutory factors and arrive at reasonable BART technology determinations.

Minnesota conducted a comprehensive rulemaking process to develop its regional haze program, beginning with its analysis of taconite sources in 2003. Minnesota began rulemaking efforts shortly after EPA promulgated its revised regulations in 2005 and invested "thousands and thousands of hours" over the next four years collecting and analyzing technical data, assessing ground-level operating information to make BART determinations that properly weighed the five statutory factors from its unique local perspective. After carefully reviewing all comments and analyzing all available information, on December 31, 2009, Minnesota submitted a detailed SIP to EPA that contained a determination of the technology that was BART for each taconite furnace in the state and for each regional haze pollutant. This

SIP was supported by more than 1,000 pages of analysis.

Similarly, Michigan began working to meet its regional haze obligations soon after the finalization of EPA's revised regional haze regulations and its state guidelines for BART determinations. After reviewing all comments and analyzing all available information, on November 5, 2010, Michigan submitted a detailed SIP to EPA with extensive technical support totaling 1,187 pages that identified BART for taconite plants.

Those submittals demonstrate that both states met their statutory regional haze SIP burden, including for BART determinations. EPA must give the states' findings the very same deference that EPA so often claims it should receive when it holds the primary role in developing a substantive standard.

**Response:** EPA addressed these very general comments in our February 6, 2013 supplemental proposed disapproval and addresses these them further in our responses to the more specific comments that follow. The commenters fail to note that the states' (December 31, 2009 and November 5, 2010) SIPs that included thousands of pages lacked, among other things, actual NO<sub>x</sub> emission limits for taconite facilities. The States are not entitled to deference in this instance because of the numerous gaps and inadequacies in their SIPs, as described in the supplemental proposed disapproval and in the responses to

comments that follow.

**Comment:** Minnesota and Michigan properly concluded that low NO<sub>x</sub> burners were not available or technically feasible for taconite furnaces at the close of the public comment periods. Pursuant to the BART Guidelines, Minnesota and Michigan identified low NO<sub>x</sub> burners as an available control technology at Step 1 of the BART analysis. "Available" at Step 1 means that the technology has a "practical potential for application to the emissions unit." At Step 2 of the BART analysis, the technologies in Step 1 are evaluated for technical feasibility. To be considered technically feasible, technology that has not been installed and operated on the source type in question must be both "available" and "applicable." Availability under Step 2 is defined differently than it is under Step 1. Under Step 2, "availability" means commercial availability. A technology is only considered commercially available if it is past bench scale and pilot testing stages and has reached the licensing and commercial sale stages. "Applicability" is a technical determination that takes into account the technical difficulties that may prevent application of available technology to the source in question, such as size and space constraints, reliability, and operating problems. The ability to secure vendor guarantees is also relevant to the applicability



determination.

EPA attempts to argue that the general existence of low NO<sub>x</sub> burner technology in other, dissimilar applications means they are technically feasible for the combustion zones of taconite furnaces under Step 2 of the BART analysis. On the contrary, the BART Guidelines identify the close of a state's public comment period as the cut-off point after which newly "available" technologies need not be considered by the states. The public comment period for Minnesota's BART technology determinations closed on May 16, 2008, and its supplemental comment period on other aspects of the proposed SIP ended September 3, 2009. Michigan's public comment period on its non-EGU BART technology determinations closed on June 23, 2010. Thus, based on Minnesota and Michigan's reasoned decisions to follow the BART Guidelines, only technologies that were "available" on May 16, 2008, and June 23, 2010 (respectively) could be considered.

EPA also implies that the States did not evaluate low NO<sub>x</sub> burners at all in their BART determinations when in fact both States did identify low NO<sub>x</sub> burners as "available" at Step 1 for every taconite facility. Minnesota and Michigan acknowledged that low NO<sub>x</sub> burners had been used in other applications such as boilers, but properly determined that low NO<sub>x</sub> burners were

"available" under Step 2 only for the preheat sections of the furnaces. None of Cliffs' facilities operate preheat burners, so low NO<sub>x</sub> burners were not technically feasible for any of its indurating furnaces.

Furthermore, EPA's statement that Minnesota possessed information suggesting that low NO<sub>x</sub> burners were "likely to be a successful technology" for the main burners of taconite furnaces in 2009 is wholly without support. The record demonstrates that Minnesota and Michigan properly determined that low NO<sub>x</sub> burners were not "available" for the combustion zones of taconite furnaces by the end of the public comment periods. At the time Minnesota was developing its SIP, low NO<sub>x</sub> burners had never been installed in an application comparable to a taconite main burner. The Minntac studies EPA cites to in support of its claim of commercial availability only further support the States' positions. Minntac did not even begin pilot testing a new low NO<sub>x</sub> burner for its grate-kiln furnaces until May 2010. That leaves no doubt that low NO<sub>x</sub> burners in the combustion zone were unavailable at the time Minnesota was making BART technology determinations because its public comment period closed months before pilot testing even began. That testing began four months after the close of Michigan's public comment period and continued through 2011. Minntac's status reports

from May and December 2011 further confirm that low NO<sub>x</sub> burners were still in the development stage through 2011. Further, Minntac identified a number of problems that required modifications to the initial burner and other adjustments. Despite all of these adjustments, Minntac never achieved the desired emission rates while combusting coal. The Essar low NO<sub>x</sub> burner studies for straight-grate furnaces were even further behind in the testing stages than the Minntac studies at the time of both SIP submissions. The 1/4-scale test facility was not built until 2011 and final results were not submitted until August 2011.

Finally, the information on low NO<sub>x</sub> burners discussed above was available to EPA at the time it proposed approval of Minnesota's regional haze SIP in January 2012. EPA cannot now claim that it "did not have the relevant information" on low NO<sub>x</sub> burners until after it initially proposed approval of Minnesota's regional haze SIP.

**Response:** Due to the complexity of Cliffs' lengthy comment and the interconnectedness of its constituent arguments, it is being addressed by a single response. However, each of the four major points raised by Cliffs are specifically identified and addressed accordingly.

EPA agrees with Cliffs that a technology that is both

"available" and "applicable" is technically feasible under Step 2 of the case-by-case BART analysis required under the BART Guidelines. Cliffs is also correct that the term "available" has somewhat different meanings under Step 1 and Step 2. Under Step 1, "[a]vailable retrofit control options are those air pollution technologies with a practical potential for application to the emission unit and the regulated pollutant under evaluation." EPA interprets this use of the term "available" broadly to include all potential control options, even those that are cutting-edge or are not currently in use at the source type in question. Under Step 2, "[a] control technique is considered available . . . if it has reached the stage of licensing and commercial availability." EPA's interpretation of this use of the term "available" is slightly less broad, and includes only those control options that can be obtained through ordinary commercial channels.

However, EPA strongly disagrees with Cliffs attempts to conflate the concept of "availability" under Step 2, with the separate concept of "applicability." While it is true that control technologies that are not "available" through ordinary commercial channels by the end of a state's public comment period need not be considered as BART, the same is not true with regards to the question of "applicability." In regards to this

latter question, states "need to exercise technical judgment in determining whether a control alternative is applicable to the source type under consideration." Moreover, "a commercially available control option will be *presumed applicable* if it has been used on the same or a similar source type."

In the instant context, low NO<sub>x</sub> burners are an "available" control technology under Step 2 because they can be obtained through ordinary commercial channels. Indeed, Fives North American and other low NO<sub>x</sub> burner manufacturers would presumably dispute the notion that their products, which have been on the market for decades, are not commercially available as Cliffs contends. As a result, Minnesota and Michigan were required to exercise their technical judgment as to whether low NO<sub>x</sub> burners were "applicable" to taconite furnaces. In light of the successful installation of low NO<sub>x</sub> burners at Minntac and Essar, which both states were aware of prior to the ends of their respective public comment periods, Minnesota and Michigan were further required to presume the applicability of low NO<sub>x</sub> burners for taconite furnaces because they were in use not just at a similar source type, but at the same source type. Since neither Minnesota nor Michigan adequately rebutted this presumption or responded to comments, but instead relied primarily on cursory technical feasibility analyses performed by the taconite

companies and their contractors in 2006, the states did not comply with the BART Guidelines or reasonably "take into consideration the technology available" or determine the "best system of continuous emission reduction." See 40 CFR 51.301 and 51.308(e) (1) (ii) (A) .

Contrary to the commenters' assertions, both states were aware that low NO<sub>x</sub> burners had been successfully installed on two lines at U.S. Steel's Minntac facility prior to the end of their respective periods for public comment.<sup>1</sup> In a June 23, 2010, letter to the Michigan Department of Natural Resources and Environment (now the MDEQ) regarding the state's draft regional haze SIP, EPA commented that "a low-NO<sub>x</sub> main burner firing solid fuels" had been installed at Minntac and that "work done by other companies had demonstrated that burner designs that lower flame temperature can reduce NO<sub>x</sub> formation in taconite furnaces."<sup>2</sup> Similarly, in a February 10, 2012, letter to the Minnesota Pollution Control Agency responding to the state's draft regional haze SIP supplement for taconite facilities, EPA explained in detail that "U.S. Steel has demonstrated the

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<sup>1</sup> The comment period for Michigan's regional haze SIP closed on June 23, 2010. The comment period for the Minnesota's regional haze SIP supplement regarding BART at taconite facilities closed on February 3, 2012, but EPA was granted an extension to submit comments. EPA's comments were submitted on February 10, 2012, and were received and considered by MPCA.

<sup>2</sup> See Michigan Regional Haze plan: EPA Letter to Michigan Department of Environmental Quality Regarding BART, May 24, 2012 (Docket # EPA-R05-OAR-2010-0954-0008) .

development and use of low NO<sub>x</sub> main burners that achieve 70 percent NO<sub>x</sub> reduction on its indurating lines."<sup>3</sup> In addition to these comments, both states received comments regarding the technical feasibility of low NO<sub>x</sub> burners from the Forest Service as well. Therefore, both Michigan and Minnesota were aware that low NO<sub>x</sub> burners had been successfully applied to indurating furnaces, and the commenters' arguments that the results of these studies somehow constitute "new" information are without merit.

Finally, even if information regarding the technical feasibility of installing low NO<sub>x</sub> burners to indurating furnaces was not available to Minnesota or Michigan, EPA nonetheless had a duty to consider any new information that subsequently arose when reviewing the states' SIPs. The Ninth Circuit recently held that "if new information indicates to EPA that an existing SIP or SIP awaiting approval is inaccurate or not current, then, viewing air quality and scope of emissions with public interest in mind, EPA should properly evaluate the new information and may not simply ignore it without reasoned explanation of its choice." *Sierra Club v. EPA*, 671 F.3d 955, 967 (9th Cir. 2012). Thus, EPA is required, at a minimum, to take new information

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<sup>3</sup> See MN Haze plan, EPA 2-10-12 comments to MPCA in MN May 8, 2012, Suppl. Regional Haze SIP submittal (Docket # EPA-R05-OAR-2010-0037-0028).

into account during the SIP approval process and, if necessary, alter its final decision accordingly.

EPA also disagrees with the commenters' assertions that low NO<sub>x</sub> burners are only commercially available for the preheat sections of indurating furnaces. The commenters statement that "Minnesota and Michigan acknowledged that low NO<sub>x</sub> burners had been used in other applications such as boilers, but properly determined that low NO<sub>x</sub> burner technology was 'available' only in the preheat sections of the furnaces" again confuses the concepts of availability and applicability. A control technology cannot be commercially available for one application, such as the preheat sections of the indurating furnaces, but not commercially available for another. Rather, the question is whether the commercially available control technology can be *applied* to the different situations.

In regards to the installations at Minntac and Essar, a January 30, 2009, report prepared by Hatch for U.S. Steel strongly recommended that U.S. Steel pursue all available technology and potential options pertaining to reducing the amount of NO<sub>x</sub> emissions generated by the rotary kiln at the Minntac facility, including the use of a low NO<sub>x</sub> burner. The feasibility of low NO<sub>x</sub> burners on straight-grate kilns is documented in a September 19, 2011 summary of findings presented



to the Minnesota Pollution Control Board by Fives North American Combustion, Inc. (Fives) for Essar. Also, reports on the success of U.S. Steel's efforts to use low NO<sub>x</sub> burners were submitted to Minnesota in 2010 and 2011, well before the close of the State's comment period on its supplemental regional haze SIP in February 2012. These reports, coupled with the comments both Minnesota and Michigan received regarding the applicability of low NO<sub>x</sub> burners to taconite facilities, put the States on notice that the cursory technical infeasibility determinations in their regional haze SIPs were not only inadequate, but inconsistent with a documented installation.

Finally, EPA acknowledges that it was aware that low NO<sub>x</sub> burners were being installed at U.S. Steel's Minntac facility in 2010, two years before EPA initially proposed conditional approval of Minnesota's BART determinations for taconite facilities. However, EPA only became aware of the U.S. Steel test reports from Minntac confirming the successful implementation of low NO<sub>x</sub> burners from comments received in response to the January 2012 proposed rulemaking. Moreover, commenters urged EPA to take a harder look at the technical feasibility of low NO<sub>x</sub> burners and the adequacy of Minnesota's BART determinations for taconite facilities. EPA considered the comments and performed additional analysis, which is exactly the

purpose of the public notice and comment period. Agencies are not required to finalize proposed decisions in the face of public comments that present compelling evidence that an agency's proposed course of action was incorrect.

**Comment:** Minnesota and Michigan properly determined that Good Combustion Practices (GCP) are BART for taconite furnaces. After identifying all technically feasible control options, the states performed cost-effectiveness analyses for each furnace and determined that no other controls would result in cost-effective NO<sub>x</sub> reductions. GCP will ensure that furnaces are running at their most efficient capabilities to complete combustion while consuming as little fuel as possible, which will reduce fuel-based NO<sub>x</sub> emissions and minimize thermal NO<sub>x</sub> by producing only the heat needed to make quality pellets. The states performed a proper BART analysis, weighing the five statutory factors to arrive at this control option, and EPA has no grounds for questioning that judgment.

EPA cannot credibly attack the legitimacy and enforceability of GCP, as EPA itself already requires taconite furnaces to employ GCP as part of the Taconite MACT, which requires all sources to "identify and implement a set of site-specific GCP for each type of indurating furnace" that "correspond to...standard operating procedures for maintaining

the proper and efficient combustion within each indurating furnace." GCP includes maintaining minimum combustion temperatures and maximum CO concentrations in the furnace exhaust gases, and ensuring proper burner alignment and fuel-air distribution and mixing. GCP also requires routine inspections, preventative maintenance, and performance analyses. The requirement to employ and demonstrate compliance with GCP is a federally enforceable requirement that has been incorporated by reference into the Title V permits for each facility. The operation and maintenance plans containing these GCP requirements were submitted to the state for each facility to ensure that they satisfied the GCP requirements set forth by EPA.

All of Cliffs' facilities were required to employ GCP as part of their Taconite MACT compliance obligations by October 2006, and were necessarily employing GCP when they were later required by Administrative Order (AO) to conduct NO<sub>x</sub> testing to establish numeric NO<sub>x</sub> BART emission limits. There is no merit to EPA's contention, therefore, that sources failed to use GCP while testing under a "worst-case" scenario to establish NO<sub>x</sub> BART emission limits. BART limits apply at all times, and therefore it is important to establish a limit that sources can meet under all operating conditions. As such, the state AOs required

extended testing to gather over 150 data points that reflected GCP under a full range of normal operating conditions. The GCP-based NO<sub>x</sub> limits act as further assurance that sources will continue to employ GCP to remain in compliance.

EPA may not make an about-face on its approval of GCP and the emission limits reflecting these controls when nothing has changed since its proposed approval. EPA has no basis for changing its position and claiming that the new federally enforceable practices and emission limits it had already found acceptable are no longer satisfactory. Contrary to EPA's claims, the amended state SIPs continue to require GCP along with process modifications, and continue to contain emission limits (or plans to develop emission limits) based on those controls.

Even if EPA could demonstrate that additional NO<sub>x</sub> reduction technologies were available during the states' assessment of BART for taconite furnaces, NO<sub>x</sub> BART demonstrations will not materially change because availability is just one of the criteria for a BART determination. Low NO<sub>x</sub> burner technologies also fail as BART because they will not produce any discernible visibility improvement.

**Response:** EPA does not agree that Minnesota and Michigan properly determined that GCP is BART for taconite furnaces and

that it identified all technically feasible control options. In its one-size-fits-all approach to establishing BART, with an essentially identical analysis for each taconite facility, Minnesota dismissed low NO<sub>x</sub> burners in the indurating section of the furnace based on speculation that they would adversely affect pellet quality. However, not only was this position unsupported by corroborating data, but U.S. Steel has demonstrated the technical feasibility of low NO<sub>x</sub> burners and documented that they do not adversely affect pellet quality.

EPA also disagrees that GCP underwent a five factor analysis as required by the Act and the Regional Haze Rule. In appendix 9.3 of its 2009 BART Determinations, MPCA states: "However, the MPCA believes that neither ArcelorMittal nor the MPCA has sufficient operating parameter data or emissions data to be able to assess whether current combustion practices constitute 'good' combustion practices . . . ." MPCA basically established an undefined concept, with no specified emission reduction potential, as BART. Without identification of a specific and quantifiable control requirement, there is no basis for a five factor analysis. There is similar language for Minnesota's other taconite facilities. Michigan also identified an unspecified GCP, without a NO<sub>x</sub> emission limit, as BART. In addition, Minnesota's 2012 regional haze SIP supplement failed

to provide any indication of what GCP is and what effect it has on emissions.

The commenters' support of GCP lacks merit for several reasons, especially because GCP is not defined by Minnesota or Michigan. Neither State's regional haze SIP contained an assessment of combustion practices, an analysis of operating parameters in relation to emissions, or a definition of operating practices that constitute GCP. Such an assessment would be needed to establish GCP, and the lack thereof further diminishes GCP as being a meaningful control measure for the taconite furnaces. In addition, GCP is not typically considered to be a NO<sub>x</sub> reduction technique. As a relevant example, the January 30, 2009, NO<sub>x</sub> Reduction Analysis performed by Hatch for U.S. Steel's Minntac facility fails to list GCP as a potential NO<sub>x</sub> reduction technology for an indurating furnace. As another example, the 2008 BACT analysis for JEA - Greenland Energy Center Units 1 and 2 also fails to list GCP as a potential NO<sub>x</sub> control. This analysis goes on to state that measures taken to minimize the formation of NO<sub>x</sub> during combustion *inhibit* complete combustion, which increases the emissions of carbon monoxide (CO). In other words, GCP, which seeks to promote complete combustion rather than inhibit it, would tend to *increase* NO<sub>x</sub> emissions. The "September 2010 We Energies Biomass Energy

Project Revised Control Technology Review for Carbon Monoxide Emissions for the Biomass-Fired Boiler" also discusses the inverse relation between NO<sub>x</sub> emissions and CO emissions, indicating how improving combustion efficiency can increase NO<sub>x</sub> emissions. In conclusion, the basic principles of combustion do not vary according to the nature of the burner application and GCP is not an accepted approach to reduce NO<sub>x</sub> emissions.

The commenters state that GCP is already required under other Federal regulations, including the Taconite MACT rule. However, GCP for the MACT is not the same as GCP for NO<sub>x</sub>. GCP for the MACT is to control products of incomplete combustion (PIC). To minimize PIC, the operating conditions targeted are generally the opposite of those that would be targeted for reducing NO<sub>x</sub>. The Taconite MACT explains at 68 FR 61883: "The basic method used in reducing NO<sub>x</sub> emissions is a reduction in combustion temperature, which is the opposite strategy needed for minimizing PIC (i.e. increasing combustion temperature)." Therefore, the operation and maintenance plans referred to by the commenters to ensure that they satisfied the GCP requirements in the Taconite MACT would therefore specify conditions that would increase NO<sub>x</sub> emissions, not reduce them.

Finally, the commenters' statement that "[l]ow NO<sub>x</sub> burner technologies also fail as BART because they will not produce any

discernible visibility improvement" is not germane to this rulemaking. Minnesota and Michigan's regional haze SIPs did not assess the visibility improvement associated with low NO<sub>x</sub> burners, or conduct a five factor analysis at all, because the States improperly rejected the technology as technically infeasible. To the extent that Cliffs is attempting to comment once again on EPA's visibility analysis for low NO<sub>x</sub> burners that was conducted as part of the FIP, that rulemaking has been finalized.

**Comment:** Michigan modeling adequately demonstrates that SO<sub>2</sub> emissions from Tilden do not cause visibility impairment. Michigan conducted source-specific modeling using CALPUFF to justify its conclusion that SO<sub>2</sub> emissions from Tilden Mining do not cause visibility impairment in Class I areas. When Cliffs' consultant conducted the proper CAMx modeling for Tilden, the results fully supported Michigan's conclusion that SO<sub>2</sub> emissions do not cause visibility impairment. On the 98th percentile most impacted day, the visibility improvement at Isle Royale, when isolating the sulfate impact, was just 0.14 deciviews. Cliffs' updated visibility modeling fully supports Michigan's determination that SO<sub>2</sub> reductions at Tilden Line 1 will not create sufficient visibility improvement to justify the expense of controls.



**Response:** This comment is of limited relevance because the issue raised by this comment was not a basis for disapproval. However, Cliffs' own modeling shows a combined impact of 0.24 deciviews at Isle Royale, Voyageurs, and Boundary Waters. In the discussion of the modeling results, Cliffs' report provides visibility impact thresholds to provide context for these results. The report states that a 0.10 deciview difference was defined by other states, such as the northeastern states' MANE-VU Regional Planning Organization, as the degree of visibility improvement below which additional controls would not be justified. Under such a threshold, even the 0.14 deciview improvement Cliffs' modeled for Isle Royale (if proven to be accurate) would be sufficient to require cost-effective controls.

**Comment:** CEMS are not required by the CAA, EPA's regulations implementing the Regional Haze program, or the BART Guidelines. The states instead have flexibility to choose an appropriate compliance demonstration method as long as it is sufficient to show compliance or noncompliance, contains a reasonable averaging period consistent with established reference methods, and provides adequate recordkeeping and reporting for the agency to confirm the source's compliance status. Also, consistent with the monitoring flexibility authorized under the BART

Guidelines, MPCA accepted CEMS data or a "comparable method of emission estimation" from each BART-affected source for purposes of establishing BART emission limits.

**Response:** This comment fails to acknowledge or address the primary concern identified in EPA's supplemental proposed disapproval, namely that absent a CEMS requirement, EPA did not find the emission limits in Minnesota's regional haze SIP to be enforceable. Even with a 30-day stack testing option in the SIP, EPA believes (as discussed in the supplemental proposed disapproval) that the results from this method could be challenged at any time as not representative. Minnesota's regional haze SIP lacked clarity as to the method to be used to determine compliance, while Michigan had no relevant emission limits whatsoever addressing BART requirements.

**Comment:** EPA does not require CEMS in many of its rules, implicitly acknowledging that CEMS are not necessary to demonstrate continuous compliance with emission limits. EPA has adopted parametric monitoring systems for other regulatory requirements that are designed to ensure compliance with health-based emission limits, including the Taconite MACT.

**Response:** EPA does acknowledge that not all regulations published in the Code of Federal Regulations require a CEMS. However, EPA stresses that SIPs are approvable only if the

emission limits contained therein are enforceable, which requires some method(s) to demonstrate compliance. EPA continues to believe that Minnesota failed to require appropriate methods to demonstrate compliance, while Michigan's SIP contained no NO<sub>x</sub> BART limit at all. Minnesota's limits are expressed as 30-day rolling averages and CEMS are needed to determine compliance with a 30-day rolling average on a continuing basis, but Minnesota in many cases does not require CEMS to provide data for evaluating compliance. In the absence of CEMS, Minnesota requires "stack testing . . . for 30 hourly data points." Even if the average of the 30 data points exceeds the emission limit, the data can be contested as not necessarily representative of the 720 hours that are in a 30-day average. Minnesota has not addressed whether 720 consecutive hours of stack testing is even practicable, though none of the data used to develop emission limits appears to have been collected in this manner.

**Comment:** Minnesota and Michigan were aware of numerous operating difficulties that have been experienced with CEMS usage at taconite furnaces. Unlike EPA, the states understood that installing CEMS on a taconite furnace is significantly more complex than installing CEMS on a boiler. United Taconite found it necessary to seek multiple approvals from MPCA to extend its

CEMS certification deadline due to CEMS maintenance difficulties, and U.S. Steel's Minntac facility, which uses CEMS for NO<sub>x</sub> monitoring, experienced similar problems with its original CEMS installation for lines 6 and 7.

**Response:** Comments regarding the difficulties of operating CEMS are not germane to the question of whether the limits adopted by Minnesota can be properly enforced without them. In any case, the initial problems faced by U.S. Steel's Minntac facility were resolved shortly after they occurred and have not reoccurred since then. EPA continues to believe that Minnesota's SIP failed to require appropriate methods for assessing compliance with its taconite plant emission limits.

**Comment:** Minnesota and Michigan sensibly concluded that requiring CEMS would add an unnecessary additional cost to their BART determinations that was not warranted. This conclusion is further supported by updated cost analyses for CEMS at Cliffs' taconite furnaces, which indicate capital costs of \$1 million to \$1.4 million per furnace for CEMS installation, plus hundreds of thousands of dollars in additional operating costs for each emission unit.

**Response:** Again, this comment appears to be an untimely comment on EPA's FIP and is not germane to EPA's proposed finding that Minnesota did not provide suitable methods for enforcing its

emission limits. Cliffs provides a table in attachment B to its comments that lists installed capital costs of CEMS. As one example, the installed capital cost for Hibbing Line 1 is listed at \$1.2 million dollars. The table also lists additional costs associated with this line's CEMS, including: 1) annual labor at \$311,250 and 2) parts and equipment at \$97,600 per year, estimating the net present value (NPV) of installed CEMS to be \$4,430,922. EPA used the number of CEMS that Cliffs specified it would need for Hibbing Line 1, as well as some additional costs (like scaffolding and platforms for brand new installations), in its standard CEMS cost spreadsheet (available at:

<http://cfpub.epa.gov/oarweb/mkb/contechnique.cfm?ControlID=26>).

Under this spreadsheet, EPA was unable to come close to duplicating the costs claimed by Cliffs. EPA is confident that the installation of CEMS at Cliffs' facilities will be substantially less than \$1.0 to \$1.4 million dollars/furnace. Even under very extreme circumstances, costs for multiple CEMS would barely reach one-third of the costs claimed by Cliffs.

**Comment:** Minnesota made all pertinent aspects of the BART determinations enforceable through Administrative Orders (AOs). First, EPA questions Minnesota's decision to express the SO<sub>2</sub> limits as lbs SO<sub>2</sub>/long ton of pellets produced for Northshore and

Hibbing, claiming that "pellet production is not routinely measured" and that the AOs do not require recordkeeping of pellet production. However, pellet production must be routinely measured for business purposes, as finished pellets make up the entire sales business of each plant. Production tonnage is measured and cross-checked by a series of calibrated conveyer belt scales on a continuous basis.

Second, EPA questions the enforceability of NO<sub>x</sub> emission limits for Hibbing because the AO for that facility provides Hibbing an opportunity to demonstrate the NO<sub>x</sub> limits in the AO are not feasible. Enforceable NO<sub>x</sub> limits apply to Hibbing at all times.

Finally, EPA's concerns over the enforceability of the CEMS requirement for Hibbing are similarly groundless. The AO requires Hibbing to submit a plan to install a CEMS on Line 2 within 60 days of the effective date of the AO, and installation and certification of the CEMS no later than one year from the due date of the plan.

**Response:** EPA is not suggesting that Cliffs fails to measure pellet production sufficiently for sales and other business purposes. However, there is no indication that Cliffs measures the quantity of finished pellets produced each day on each line. Such daily measurements on each line would be necessary to

establish compliance with a limit measured in lbs SO<sub>2</sub>/long ton of pellets, on a 30-day rolling average, as specified in the AOs. Although the AOs contain a general requirement for retaining records of operational parameters related to emissions, there is no explicit requirement for maintaining daily records of the finished production from each line. Such records would be necessary for determining compliance with the lbs SO<sub>2</sub>/long ton limits.

With respect to the commenters' second point, EPA agrees that Minnesota set a NO<sub>x</sub> limit that will apply to Hibbing's line 2. However, there are no specific criteria in the Minnesota SIP or the AO for Hibbing to ensure that an alternative limit, were it to be established, would be set in such a manner so as to satisfy BART. Also, the AO did not provide that the alternative limit had to be in the form of a SIP revision so as to be Federally enforceable as required by the Act.

Finally, EPA understands that the AO requires Hibbing to submit a plan to install a CEMS on Line 2, and possibly on Lines 1 and 3. Although there is an explicit requirement for a plan that provides for installation of the CEMS, there is not an actual requirement that the CEMS be installed.

**Comment:** Michigan and Minnesota appropriately determined BART for SO<sub>2</sub> after conducting a case-by-case evaluation of taconite

pelletizing furnaces. Minnesota concluded that existing wet scrubbers for particulate control used at the Hibbing, Northshore, and United Taconite Line 1 furnaces would constitute BART when operated to also control SO<sub>2</sub> emissions. Minnesota's BART determination for United Taconite Line 2 was complicated by an intervening expansion project that relied on fuel blending to reduce emissions. Minnesota set the numeric BART limits for United Taconite at a level more stringent than the level the wet scrubbers alone were expected to consistently achieve. Cliffs retained the flexibility under the SIP to meet this SO<sub>2</sub> limit by installing a polishing scrubber or by adjusting the sulfur content in its fuel blend.

EPA claims that Minnesota's BART determination for United Taconite is not approvable because it did not reconsider the cost-effectiveness of flue gas desulfurization (FGD) after the expansion project. However, EPA cannot reject the SIP on this basis because EPA's own BART determination, in the final taconite FIP, also concluded that FGD is not cost-effective for United Taconite. Given United Taconite's ability to blend existing fuels, United Taconite's anticipated actual baseline SO<sub>2</sub> emission rate will be low enough to render a reduction from FGD not cost-effective. EPA reached the same conclusion that Minnesota reached in its SIP that BART for SO<sub>2</sub> at United taconite



was an emission limit, not a control device. The FIP emission limit reflects a significant SO<sub>2</sub> reduction that can be accomplished through fuel blending or polishing controls, which is precisely the BART technology determination that EPA claims to object to in the SIP. The 0.6-percent sulfur content that EPA adds in the FIP does not reduce emissions and does nothing to advance regional haze goals. EPA's objection to Michigan's SO<sub>2</sub> BART determination for Tilden Line 1 must fail on the same basis. Tilden has also indicated that it will adjust fuels to ensure that baseline SO<sub>2</sub> emissions cannot justify FGD as a cost-effective control. Therefore, Michigan appropriately set an SO<sub>2</sub> limit for Tilden that did not reflect expensive add-on controls.

**Response:** EPA's FIP did not require FGDs because in November, 2012, EPA agreed that FGDs would not be necessary at United Taconite and Tilden because Cliffs stated an intention at that time to switch to lower sulfur fuels that would result in lower SO<sub>2</sub> emissions. However, Minnesota and Michigan's BART analyses were based upon the use of high sulfur fuels.

Therefore, this comment is largely misdirected because it is based upon EPA's FIP and not on the adequacy of Minnesota and Michigan's BART determinations. The commenter's assertion that EPA reached the same conclusion that Minnesota reached in its SIP is irrelevant because EPA made its determination based upon

United Taconite's anticipated use of low sulfur fuels (with much lower SO<sub>2</sub> emissions) than the high sulfur coal in use by United Taconite currently, and upon which Minnesota's determination of BART was based.<sup>4</sup> EPA agreed that FGDs are not BART at this anticipated lower emission rate, but does not agree that FGDs are not BART when United Taconite is burning high sulfur coal. The commenter goes on to object to the 0.6-percent sulfur content limit in the FIP. This sulfur content restriction is also not relevant to whether or not Minnesota's SIP is approvable because it was neither suggested as a control option by the commenter at the time of Minnesota's rulemaking, nor considered by Minnesota.

EPA therefore maintains its position that Minnesota improperly rejected the use of FGD as a cost-effective technology for reducing SO<sub>2</sub> emissions from United Taconite's two lines. Also, as discussed in the August 15, 2012, proposed action, EPA believes that flue gas scrubbing, particularly in combination with proper fuel blending, is considerably more cost-effective than the cost-effectiveness estimates in Minnesota's regional haze SIP. Furthermore, subsequent to Minnesota's initial BART analysis, United Taconite switched to

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<sup>4</sup> As indicated in an 11-29-12 e-mail exchange, Cliffs agreed to use lower sulfur fuels with the result of reducing its SO<sub>2</sub> emissions by half.

using high sulfur fuels on both of its lines, thus making FGD a more appropriate control measure to be considered.

Similarly for Michigan, EPA agreed that if Tilden switches to 100-percent natural gas,<sup>5</sup> the use of an FGD would not be cost-effective. However, Michigan's BART determination was based upon the use of high sulfur coal. As indicated in EPA's August 15, 2012 proposed action, EPA determined that an FGD would be more cost-effective than indicated by the Michigan regional haze SIP, and an FGD was therefore proposed as BART.

**Comment:** MPCA's statistical analysis establishing SO<sub>2</sub> limits for the Hibbing facility is correct because the data is normally distributed. Barr Engineering provided an analysis showing that the data is normally distributed. The approach Minnesota used to establish emission limits for each facility was well within the discretion afforded to states to identify BART emission limits.

**Response:** Non-parametric SO<sub>2</sub> emissions data appear to be typical across the industry. EPA agrees, however, that the available data for the majority of Hibbing's lines appear to be normally distributed.<sup>6</sup> However, as discussed in greater detail in the

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<sup>5</sup> As indicated in an 11-29-12 e-mail exchange, Cliffs agreed to switch to natural gas, thereby reducing its SO<sub>2</sub> emissions by at least 80 percent.

<sup>6</sup> It should be noted that the Barr Engineering analysis combined the data from the different lines. Because even lines of the same size can function

supplemental proposal, MPCA did not correctly apply the upper predictive limit (UPL) equation for normally distributed data. See 78 FR 8482-8483. If that equation were applied properly, the resulting limit for Hibbing would be significantly lower than the limit set by MPCA. In addition, the limits set by MPCA were expressed in terms of lbs SO<sub>2</sub>/long ton of pellets produced. As discussed in the supplemental proposal, pellet production is not routinely measured at the end of an indurating furnace. Further, the AOs do not specify methods for determining pellet production by indurating furnace and do not specify any requirement to keep records of pellet production.

**Comment:** The SO<sub>2</sub> emission limits set by EPA in the FIP are identical to the emission limits set by Minnesota for Northshore and similar to the emission limits set for Hibbing. Therefore, even if EPA has legitimate technical corrections, the resulting changes are not substantive and should not result in wholesale rejection of the Minnesota regional haze SIP. These issues should have been resolved in discussions with Minnesota before EPA issued a FIP.

**Response:** EPA disagrees. The SO<sub>2</sub> emission limits set by Minnesota were expressed in terms of lbs SO<sub>2</sub>/long ton of pellets produced, while the limits set by EPA are expressed in terms of

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differently, it would be more appropriate to consider the lines separately.

lbs SO<sub>2</sub>/hour. No demonstration has been made that the limits are equivalent. Furthermore, the emission limit set by EPA in the FIP for Northshore is temporary and must be recalculated after CEMS data has been collected.

**Comment:** Minnesota and Michigan were not required to reopen the BART technology determinations to accommodate EPA's unreasonably lengthy SIP review, and EPA may not reject the SIPs on this basis. EPA must approve SIPs that satisfy all applicable regulatory requirements pursuant to CAA section 110(k)(3). The public comment periods on Minnesota and Michigan's BART determinations closed on May 16, 2008, and June 23, 2010, respectively. Only technologies that were commercially available under Step 2 of the BART analysis at that time could be considered by the states in making BART technology determinations. EPA may not disapprove a state SIP because the states did not include information in their analyses that was not in existence at the time the technology determinations closed.

While the state's determinations were awaiting EPA action, Minnesota was engaged in an extensive process of collecting emissions data and performing analyses to set emission limits that reflected those technology determinations. The states must be able to rely on their BART determinations as they proceed to

convert them to emission limits.

**Response:** As discussed previously, and contrary to the commenters' assertions, low NO<sub>x</sub> burners were "available" at the end of both states' public comment periods and have been for decades. As such, both states were required to determine whether low NO<sub>x</sub> burners were applicable to taconite furnaces, a task which they failed to do as neither state adequately considered the installation at U.S. Steel's Minntac facility or other available information.

While immaterial, EPA notes that the commenters provide no support for their assertion that the States were entitled to rely on their prior BART determinations as they "proceeded to convert them to emission limits." On the contrary, the Act explicitly requires that all BART determinations be in the form of enforceable emission limits. See CAA sections 110(a)(2)(A) and 169A(b)(2). Neither the Act nor the BART Guidelines contemplate a scenario in which states are permitted to select a technology as BART, walling off that decision from further public scrutiny and comment, and then wait several years before setting emission limits to complete the BART process, ignoring any new information brought to their attention in the process.

**Comment:** The information that became available after the close of the states' public comment periods only further supports

Minnesota and Michigan's initial BART determinations. Serious concerns continue to exist over the feasibility of low NO<sub>x</sub> burner technology on a case-by-case basis, and current cost and modeling information suggest that application of this technology would be both more expensive and less impactful from a visibility standpoint than EPA presumes. Furthermore, the most current cost information on FGD technology confirms that FGD technology is not a cost-effective control option for United Taconite or Tilden. Minnesota and Michigan made proper BART determinations in 2008 and 2010, and none of the information EPA cites provides grounds for changing these determinations.

**Response:** EPA published the February 6, 2013, supplemental proposed disapproval to provide additional information regarding EPA's views on Minnesota and Michigan's regional haze SIPs and to solicit additional comment regarding the proposal to disapprove the SIPs for failing to require BART at the applicable taconite plants. EPA is not soliciting further comment on its FIP as the supplemental proposal only addresses whether the states' SIPs should be disapproved for failing to provide an adequate analysis and require BART for applicable taconite plants. The commenters specifically raise the following points: (1) low NO<sub>x</sub> burner technology is not technically feasible for straight-grate furnaces; (2) low NO<sub>x</sub>

burner technology is not technically feasible for grate-kiln furnaces; (3) updated cost analyses demonstrate that low NO<sub>x</sub> burner technology is not cost-effective in light of limited visibility improvements; and (4) updated cost analyses demonstrate that FGD technology is not cost-effective for Tilden or United Taconite in light of limited visibility improvements. These points are not directly relevant to the disapproval of Minnesota and Michigan's regional haze SIPs for taconite plants. Indeed, given the conclusory nature of Minnesota and Michigan's SIPs regarding the feasibility of low NO<sub>x</sub> burners at these facilities, these comments appear to be seeking to provide alternative justifications for the States' BART determinations that the plans themselves do not rely upon.

In any case, the commenters' review of the feasibility of low NO<sub>x</sub> burners reflects an overly narrow view of technical feasibility. Any installation of control equipment at a facility that does not already have that equipment in place requires engineering to determine how best to design the equipment to work most effectively given the particular features of the particular facility. The commenters appear to be arguing that low NO<sub>x</sub> burners cannot be considered technically feasible because, for example, the engineering work done to design low NO<sub>x</sub> burners for the Essar facility cannot be directly applied to



other facilities. The commenters cite selected design features that differ from facility to facility, such as the number of windboxes, but the commenters provide no reason for EPA to believe that any of these features pose problems that could not be solved by appropriate engineering analysis, just as has been done at multiple taconite lines and in countless other high temperature processes in numerous other industries. Comments regarding costs and visibility benefits do not speak to whether Minnesota or Michigan appropriately analyzed these costs and benefits, and comments regarding time for installation appear to be untimely comments on the FIP that are not relevant to this rulemaking or the approvability of the States' regional haze SIPs. These issues are more appropriately discussed in the FIP, which includes a full and appropriate analysis of BART.

**B. Comment by MDEQ and Cliffs**

**Comment:** In spite of the provision in the BART Guidelines that states: "[A]ll technologies should be considered, if available before the close of the State's comment period. You need not consider technologies that became available after this date," MDEQ felt that additional review was warranted and included in the SIP a requirement that Tilden must conduct further testing to provide the basis for NO<sub>x</sub> emission limits to be incorporated in the air permit for the Tilden facility. Tilden has since

complied and its Permit to Install No. 148-12 contains an enforceable emission limit.

**Response:** Michigan has not submitted this permit as part of its regional haze SIP. To be approvable, emission limits representing BART must be contained in the SIP itself to guarantee Federal enforceability. Indeed, the Regional Haze Rule specifically states: "The State must submit an implementation plan *containing* emission limitations representing BART." 40 CFR 51.308(e) (emphasis added). The requirement that BART emission limits be contained in the SIP is important because states can unilaterally remove or alter permit limits (that are not otherwise contained in an approved SIP or Federal standard) without federal approval. Moreover, permits expire. Consequently, the existence of a limit that Michigan has not submitted as part of its regional haze SIP cannot be considered to remedy deficiencies in the SIP.

EPA additionally notes that the NO<sub>x</sub> limit in Tilden's permit is 2,270 lbs/hr on a 30-day rolling average. According to Table 3-1 in appendix 9H of Michigan's regional haze SIP, the *maximum* 24-hour actual NO<sub>x</sub> emissions for Tilden were 26,208 lbs/day. Dividing by 24 results in an emission rate of 1,092 lbs/hr, which is less than half of the permitted limit. Thus, even if EPA were to agree that GCP was BART for this facility, Michigan

has not demonstrated that a limit more than twice the facility's maximum actual emissions could possibly represent GCP.

**C. Comments by MDEQ**

**Comment:** The Michigan regional haze SIP provided extensive documentation of a full and appropriate analysis of BART that meets the requirements of the CAA.

**Response:** As discussed in the supplemental proposal, the Michigan regional haze SIP did not meet CAA requirements because of its failure to require emission controls that represent BART. The Michigan SIP defines BART as GCP, but there is no explanation of what GCP is and no NO<sub>x</sub> limits representing GCP. Michigan relies on a state permit that has not been submitted to EPA in the form of a SIP revision to argue that there is a limit on Tilden's NO<sub>x</sub> emissions. For the reasons explained in the prior response, this limit is insufficient to satisfy the requirements of the CAA and the Regional Haze Rule.

**Comment:** There was no information prior to the close of Michigan's public comment period on June 23, 2010, indicating that low NO<sub>x</sub> burners had been successfully utilized on indurating furnaces operating under the same circumstances as Tilden's grate-kiln furnace.

**Response:** In a June 23, 2010, letter to Michigan regarding its regional haze SIP, EPA stated that "a low NO<sub>x</sub> main firing burner

firing solid fuels" had been installed at Minntac's grate-kiln furnace," (both Minntac and Tilden have grate-kiln furnaces) and that "work done by other companies had demonstrated that burner designs that lower flame temperature can reduce NO<sub>x</sub> formation in taconite furnaces." Even after being notified of the above, Michigan did not conduct an adequate BART review of this technology in its regional haze SIP. MDEQ's only response to EPA's comment was that "[t]he projects and technologies described above were not selected or proposed for BART, but rather were proposed primarily as projects to be studied, and were agreed to be completed as part of PSD permitting (not BART) or enforcement situations. None of the technologies and projects described above have been established for BART at taconite plants in Minnesota." Such circular logic, that low NO<sub>x</sub> burners should not be evaluated for BART because the States had not selected them as BART, is arbitrary and inadequate.

**Comment:** The FIP schedule of compliance does not allocate sufficient time for the permitting process.

**Response:** While not germane to this rulemaking, EPA notes that MDEQ has provided no information explaining why Tilden needs more than 26 months to accommodate permitting requirements.

**Comment:** MDEQ disagrees with the contents of EPA's July 2, 2012, conversation between EPA, U.S. Steel, and COEN, which is

described in the August 15, 2012, proposed action. It states: "There is also no increase in combustion related emissions, such as carbon monoxide or volatile organic compounds, and there is no reason for SO<sub>2</sub> emissions to increase through use of a low NO<sub>x</sub> burner." This conversation failed to recognize that the December 22, 2008 permitting action for the installation and operation of the auxiliary burners and conversion to low NO<sub>x</sub> burners included a net emission increase of 1,607 tons/year of carbon monoxide.

**Response:** The 2008 permitting action included an emission estimate only. Newer information from November 2009 letters from COEN and Hatch document why no increase in CO is expected due to the installation of low NO<sub>x</sub> burners. These assertions are further supported by U.S. Steel's draft permit for Lines 4 and 5 at Minntac, which was put out for pre-public notice review on May 14, 2013. This permit shows only a minimal increase in CO emissions according to PSD calculation methodology.

#### **D. Comments by the National Mining Association**

**Comment:** EPA's proposed disapproval of Minnesota and Michigan's regional haze SIPs is contrary to the federalism principles embedded in the CAA. Congress purposely created a cooperative federalism scheme in the CAA to define the roles of EPA and the states under the regional haze program. As the D.C. Circuit

Court of Appeals recently noted in *EME Homer City Generation, L.P. v. EPA*, 696 F.3d 7, 12 (D.D.C. 2012), "Under the Clean Air Act, the Federal Government sets air quality standards, but States retain the primary responsibility (if the States want it) for choosing how to attain those standards within their borders. The Act thus leaves it to the individual States to determine, in the first instance, the particular restrictions that will be imposed on particular emitters within their borders. (If a State refuses to participate, the Federal Government regulates the sources directly.)" Procedurally, this requires states to submit SIPs that address regional haze and establish BART determinations for sources within their borders. The states then submit these plans to EPA, who must approve them if they satisfy all regulatory requirements. See CAA section 110(k).

In this instance, both Michigan and Minnesota submitted well-reasoned SIPs detailing their plans for addressing regional haze impacts. The entire taconite industry in the United States resides in these two states, and as a result, Minnesota and Michigan have an extensive and unparalleled understanding of the taconite mining and processing industry. Minnesota and Michigan used this industry knowledge and years of work and technical analysis to arrive at BART determinations for each BART-eligible taconite furnace. In doing so, Minnesota and Michigan carefully

considered all available information provided through the end of their public comment periods and used this information to analyze available control technologies and the feasibility of installing these control technologies on each taconite furnace. The states then evaluated this information in light of the five statutory factors set forth by the CAA.

Minnesota and Michigan performed these evaluations on a case-by-case basis, in compliance with the CAA and in accordance with EPA guidance, and sought public comment on their determinations. The states carefully considered these comments before finalizing their SIPs and submitting them to EPA for approval on December 31, 2009 (Minnesota) and November 5, 2010 (Michigan).

EPA is now proposing to disapprove those determinations, not because the states erred in their reasoning, but because new information was presented in 2012. This information, a report on low-NO<sub>x</sub> burner technology used at the Minntac furnace, was not available when the states arrived at their BART determinations and it had not been peer-reviewed or subject to evaluation by the affected stakeholders. EPA's own guidance establishes a cut-off date for state technology determinations at the close of the state public comment period. The States, therefore, were not required to re-open their BART determinations based on this

new information, and EPA does not have the authority to disapprove a valid and supported SIP based on information that was not available to the states at the time of their BART determinations.

EPA claims that it was compelled to consider this new information submitted during its 2012 public comment period when deciding whether to approve the SIPs, even if the States were not. EPA certainly could have considered the new information in many appropriate ways, but it chose not to. EPA could have shared the report with the States and then deferred to the States' evaluation of the data. Instead, EPA chose to ignore the States' assessment that the report was an insufficient demonstration that the technology was appropriate for the diverse furnace designs in the rest of the industry. EPA could have solicited a peer review of the report. Instead, EPA actively ignored the input of the furnace design engineers at Metso Engineering, who told the agency repeatedly that the burner designs would require 20-50-percent more fuel per ton of pellets and could cause pellet quality problems when installed on other taconite furnaces. EPA arbitrarily included in the record for its proposed FIP only the information that supported low NO<sub>x</sub> burners as BART instead of considering all the



information made available to the agency and conducting the critical technology review that the CAA requires.

EPA's limited authority under the CAA does not authorize it to disapprove a SIP and impose a FIP merely because EPA prefers a different BART outcome. EPA's role is not to gather evidence to support a predetermined BART decision and actively ignore contrary information. When the available information does not provide a clear contrary path, EPA must defer to the states' method for weighing the available information and to the lawful and appropriate BART decision that arises from that method.

**Response:** EPA disagrees with NMA's assertion that "EPA is now proposing to disapprove these determinations, not because the states erred in their reasoning, but because new information was presented in 2012." In a June 23, 2010, letter to Michigan regarding the state's draft regional haze SIP, EPA commented that "a low NO<sub>x</sub> main burner firing solid fuels" had been installed at Minntac and that "work done by other companies had demonstrated that burner designs that lower flame temperature can reduce NO<sub>x</sub> formation in taconite furnaces." Similarly, in a February 10, 2012, letter to Minnesota responding to the state's draft regional haze SIP supplement for taconite facilities, EPA explained in detail that "U.S. Steel has demonstrated the development and use of low NO<sub>x</sub> main burners that achieve 70

percent NO<sub>x</sub> reduction on its indurating lines." Therefore, both states were aware that low NO<sub>x</sub> burners had been successfully applied to indurating furnaces.

Although NMA states that EPA could have shared the report with the States and then deferred to the States' evaluation of the data, Minnesota had this information before EPA and made no apparent use of it. This information is listed in EPA's February 10, 2012, letter to Minnesota, which refers to three reports, from April 13, 2010, to December 1, 2011, informing the MPCA of U.S. Steel's success in installing low NO<sub>x</sub> burners on two of its indurating furnaces. (EPA also provided a copy of this letter to Michigan.) Even if Minnesota did not want to require general use of a proven technology on other facilities, there is no conceivable reason why Minnesota dismissed low NO<sub>x</sub> burners as BART at the U.S. Steel Minntac lines that were already using them. Although Metso Engineering "told the agency repeatedly that the burner designs would require 20-50% more fuel per ton of pellets and could cause pellet quality problems," U.S. Steel documented that it had neither a fuel penalty nor pellet quality problems.

EPA's action cannot be characterized as disapproving submittals that satisfy CAA requirements "merely because EPA prefers a different BART outcome." In commenting that EPA must

approve state submittals that meet minimum CAA requirements, NMA apparently recognizes that EPA must disapprove state submittals that fail to meet CAA requirements. By dismissing clearly applicable NO<sub>x</sub> and SO<sub>2</sub> emission control options as infeasible, and by finding a group of NO<sub>x</sub> emission reduction practices (GCP) to be BART without defining or conducting the necessary five factor analysis of any particular good combustion practice, along with other SIP deficiencies, Michigan and Minnesota's submittals fail to satisfy CAA requirements regarding BART.

Finally, in regards to NMA's comment regarding a cut-off date for considering new information regarding available technologies, EPA provided a thorough response to a similar comment from Cliffs above.

**Comment:** EPA may not use a "sue-and-settle" approach to circumvent CAA requirements and usurp the role of the states. EPA's decision to seek comment on proposed deficiencies in the States' regional haze SIPs only *after* finalizing a FIP is contrary to the cooperative federalism scheme of the CAA. EPA's well established role is to review SIPs, determine whether they meet CAA criteria, and only if the state process fails to produce a compliant SIP can EPA issue its own FIP. By definition, a FIP may be used only to "fill all or a portion of a gap or otherwise correct all or a portion of an inadequacy in

a State implementation plan.” In this instance, EPA has put the cart before the horse by finalizing a FIP and then seeking public comment on the supposed deficiencies that formed the basis for the FIP in the first place. EPA took this strange course of action to meet a deadline that the agency agreed to in a consent decree to settle litigation brought by the National Parks Conservation Association. EPA may not, however, use a self-imposed consent decree deadline to justify doing things out of order and in violation of the clear rulemaking process set forth in the CAA.

Prior to issuing its FIP, the only deficiency EPA had identified was a failure by Minnesota and Michigan (along with over 30 other states) to submit a timely regional haze SIP. Minnesota and Michigan rectified this deficiency by submitting their SIPs. These submittals triggered EPA’s obligations under CAA section 110(k) to review the SIPs within one year and work with the states to make any changes necessary for federal approval. Instead of meeting its statutory obligation to act on the state submissions within one year, EPA entered into a consent decree with environmental organizations that set a court-ordered deadline for action on regional haze. In January 2012, EPA was on course to meet that deadline in Minnesota by proposing approval of the Minnesota regional haze SIP. However,

when EPA decided to change course and propose a FIP, EPA had left itself with no time to properly identify deficiencies in the SIPs. EPA used the consent decree deadline as an excuse to stop working with the states to finalize the SIPs, to arbitrarily ignore contrary information, and to deny requests for additional time for public comments. EPA's rushed FIP that revealed a poor understanding of the taconite industry and significant shortcuts in the BART determination process. EPA did not propose disapproval of the state SIPs before rushing into a FIP, let alone provide ample opportunity for public comment or for the states to rectify any perceived deficiencies.

Had EPA followed proper procedure and discussed this new information with the states, EPA would have understood that the new low NO<sub>x</sub> burner trial information would not have changed the state BART determinations for taconite furnaces. The taconite industry is highly specialized, with each indurating furnace designed to process a specific ore type and produce pellets meeting varying specifications. An in-depth understanding of each taconite furnace is necessary to properly evaluate the applicability of "new" technology to these sources. Instead of taking the time necessary to understand these issues, EPA cited its looming consent decree and rushed through a "one-size-fits-all" FIP that requires all taconite furnaces to expend

significant resources designing and installing technologies that are unproven and could severely impact their ability to manufacture a high quality product for global markets. This result would produce severe economic consequences for the taconite industry in Minnesota and Michigan. EPA may not use a self-imposed consent decree to cut the states out of a process Congress intended them to control and inflict this type of burden on the taconite industry.

**Response:** This comment is generally not relevant to the proposed disapproval and is primarily focused on EPA's decision to promulgate a FIP, as well as the substance of the FIP. For example, the comments objecting to EPA promulgating a FIP before acting on the states' SIPs and the comments regarding EPA's alleged "sue-and-settle" approach appear to be objecting to the timing of EPA's FIP promulgation rather than addressing appropriate action on the states' SIPs. NMA believes that EPA did not properly consider the "highly specialized" nature of taconite facilities, but NMA does not identify any particular features of any particular facilities that would make more or less control feasible. More pertinently, the comment suggests that the one-size-fits-all nature of the state SIPs (in all cases determining undefined "good combustion practices" to be BART) are an important deficiency.

**E. Letter from Congressman Richard M. Nolan**

Congressman Nolan submitted a March 4, 2013, letter to EPA asking EPA to approve the Minnesota SIP or amend the FIP to allow the taconite facilities sufficient time to comply with NO<sub>x</sub> BART emission limits. The comments submitted by the Congressman focus primarily on compliance deadlines and as such are FIP rather than SIP issues. Today's action disapproves the Minnesota SIP, however, EPA notes that the compliance deadlines in EPA's FIP have already been stayed by the Eighth Circuit and EPA is currently reviewing several petitions for reconsideration that request additional extensions of the compliance deadlines for NO<sub>x</sub> BART.

**F. Comments by the Minnesota Pollution Control Agency**

**Comment:** The proposed SIP disapproval presents unnecessary challenges to the historically strong state/Federal relationship in Minnesota. EPA's actions rendered moot a significant investment of time and resources by the MPCA.

**Response:** EPA also values its strong relationship with MPCA, but this concern cannot justify approving a SIP that does not meet CAA requirements. EPA appreciates MPCA's efforts and the time it invested on the Minnesota regional haze SIP, which EPA approved in full except with regard to the BART determinations for taconite facilities. EPA encourages MPCA to consider

submitting a SIP revision for taconite BART that EPA could evaluate for approval and potential replacement of EPA's FIP.

**Comment:** EPA's BART Guidelines do not require states to re-open final BART decisions to consider a technology that becomes available after the close of the public comment period on the state's SIP. MPCA was clear that its May 2012 regional haze SIP supplement was not re-opening its 2009 BART determinations for taconite facilities. MPCA had valid reasons to exercise this discretion because MPCA knew that the pilot project for low NO<sub>x</sub> burners at Minntac was limited to a single type of taconite furnace and that the pilot project clearly illustrated that low NO<sub>x</sub> burners required significant testing and operational changes at the two furnaces tested.

**Response:** As discussed above in response to a similar comment by Cliffs, MPCA is misreading EPA's BART Guidelines. Low NO<sub>x</sub> burners are in wide use across a wide range of industries, many involving combustion conditions comparable to those in the taconite industry, and this technology has been commercially available since long before MPCA even began considering BART for taconite plants. Therefore, statements in the BART Guidelines regarding the consideration of technologies that become available after the close of a state's comment period are not germane here.



MPCA's comment suggests that MPCA interprets "available" to mean not just commercially available, but also "applicable" at a particular facility. This interpretation is inconsistent with the BART Guidelines, which clearly differentiate between the concepts of "availability" and "applicability." For a technology like low NO<sub>x</sub> burners that has long been commercially available, the BART Guidelines do not provide states with the authority to disregard information that indicates that an "available" technology has also become "applicable," and therefore technically feasible, for use at a particular source type.

Furthermore, MPCA offered multiple comment periods throughout its regional haze SIP development process. MPCA wishes to treat its last comment period as merely addressing the emission limits for a BART technology it had selected previously, without offering the opportunity to reconsider whether the selection of that technology was appropriate. Thus, even assuming MPCA's interpretation of "available" were correct, MPCA provides no rationale for interpreting the BART Guidelines in such a way so as to foreclose the consideration of technologies that become available after the close of one comment period, but before the close of another, later comment period. Therefore, the BART Guidelines provide no justification

for MPCA to disregard the information that has come to light over the last several years that low NO<sub>x</sub> burners are "applicable" and technically feasible for the taconite facilities in the state.

Installation of a new control technology at a facility commonly requires "significant testing and operational changes." Indeed, EPA's FIP provided time for exactly this effort. Taken to its logical extreme, MPCA's comment suggests that states could not require new controls at facilities unless the controls have already been installed there. On the contrary, the need for testing and operational changes alone cannot justify a finding that controls are technically infeasible.

**Comment:** EPA should stay implementation of its FIP to resolve procedural issues with the SIP actions. EPA's supplemental proposed disapproval provides no legal authority, either from the CAA or from case law, which allows EPA to adopt a final FIP before EPA formally disapproves a state's SIP. EPA's claim that it has a mandate to promulgate such a FIP without regard to whether EPA has disapproved the State's SIP is unsupported and contrary to case law.

**Response:** EPA disagrees. EPA's final rule promulgating the FIP clearly explained the Agency's legal authority for taking action. Section 110(c) of the CAA requires EPA to promulgate a

FIP after finding that a state has failed to make a required submission unless two events occur before EPA promulgates a FIP: 1) the state corrects the deficiency, and 2) EPA approves the state's SIP. We note, however, that this comment is moot because the Eighth Circuit has since stayed the effective date of EPA's FIP.

**Comment:** EPA's June 12, 2012, final action simply stated that EPA was deferring action with regard to BART for taconite facilities because Minnesota did not select EPA's chosen control technology. By publishing the supplemental proposed disapproval on the same day as the final FIP, EPA is not providing Minnesota with a meaningful opportunity to comment on EPA's proposed action because EPA has already decided on its course of action. Under the CAA, EPA's supplemental proposed disapproval should afford Minnesota the opportunity to remedy the specific issues EPA cites as not adequately meeting the requirements of the CAA.

**Response:** First, MPCA mischaracterizes EPA's June 12, 2012 final action, in which EPA actually stated that it was deferring action to evaluate information indicating that BART should be defined as a more effective control technology. 77 FR 34801 at 34806. Second, as EPA explained in an earlier response to a similar comment from Cliffs, a FIP is a gap-filling measure only. See CAA section 302(y). As a result, a FIP promulgated

by EPA remains in place only until a state submits a SIP correcting the inadequacy and that SIP is approved by EPA. In this instance, MPCA and other commenters had a meaningful opportunity to comment on EPA's supplemental proposed disapproval and explain why EPA's proposed action was incorrect. Had EPA agreed with MPCA or other commenters and approved the Minnesota and Michigan BART determinations for taconite facilities instead, EPA's FIP would have been replaced. Therefore, MPCA's assertions are incorrect. Furthermore, we again encourage MPCA to consider submitting a SIP revision for taconite BART that EPA could evaluate for approval and potential replacement of EPA's FIP.

**Comment:** EPA's August 15, 2012, proposed action did not propose to disapprove Minnesota's regional haze SIP for taconite facilities. The only mention of the disapproval of Minnesota's SIP is in the preamble where EPA makes an unsubstantiated claim that the disapproval is for a failure to make a required submission. MPCA objects to the absence of substantive analysis or detail about what required submission Minnesota did not make. According to *Train v. Natural Resources Defense Council*, 421 U.S. 60 (1975), EPA can only disapprove a SIP if it does not adequately meet the requirements of CAA section 110(a)(2).

Also, no mention of the disapproval of the SIP is made in

the "Proposed Agency Action" section of the Federal Register notice, meaning that EPA failed to take official agency action on Minnesota's regional haze SIP. Finally, EPA's assertion that the August 15, 2012, proposed rule served as an "implicit disapproval" of Minnesota's regional haze SIP represents an acknowledgement that EPA failed to take formal agency action. The CAA has no provision for "implicit disapprovals."

**Response:** EPA's August 15, 2012, proposed action noted that the BART requirement "has not been satisfied by Minnesota or Michigan for its subject taconite plants," and the proposed codification for Minnesota stated that "[t]he requirements of section 169A of the Clean Air Act are not met because the regional haze plan submitted by the state on December 30, 2009, and on May 8, 2012, does not meet the requirements of 40 CFR 51.308(e) with respect to NO<sub>x</sub> and SO<sub>2</sub> emissions from [the listed taconite facilities]." This proposed codification represents "official agency [proposed] action."

On the other hand, EPA agreed with comments expressing concern that the August 12, 2012 notice did not provide adequate explanation of EPA's rationale for proposing to disapprove in part the two States' regional haze SIPs. In response to those comments, EPA published a supplemental notice on February 6, 2013, at 78 FR 8478, elaborating on EPA's rationale for

proposing to disapprove in part these SIPs.

EPA did not claim, in its August 12, 2012 proposed action or elsewhere, that the disapproval was for failure to submit a timely regional haze SIP. EPA stated that its FIP obligation was based on a finding that the states had failed to make the submittal (an obligation that remains in the absence of EPA approval of a subsequently submitted SIP). Similarly, EPA did not make the assertion regarding "implicit disapproval" claimed by Minnesota. Instead, EPA stated that its August 12, 2012 proposed action "provided a full discussion of why EPA proposed to conclude that the BART criteria resulted in more stringent control than was required by the States, thus implicitly concluding that the state submittals did not require controls representing BART." Furthermore, the action proposed regulatory text stating that the state submittals failed to require BART for the taconite plants.

In regard to MPCA's comment regarding the D.C. Circuit's decision in *Train v. NRDC*, that case did not deal with a regional haze SIP, which, in addition to satisfying the requirements of CAA section 110(a)(2), must also satisfy the requirements of CAA section 169A and the Regional Haze Rule.

**Comment:** MPCA comments that EPA's claims of authority to promulgate a FIP based on a finding of failure to submit a SIP

fail to recognize that Minnesota "submitted a SIP within the timeline [prescribed] by the 2009 Notice of Deficiency." MPCA objects that the administrative record omits an April 1, 2010, letter finding Minnesota's SIP to be complete.

**Response:** This comment regarding FIP authority has been addressed in EPA's FIP and is not relevant here. EPA has made the addition to the record that MPCA requested.

**Comment:** MPCA comments that EPA's supplemental proposed disapproval does not remedy EPA's official statements from the June 12, 2012, final action in which EPA stated that it would act through a FIP because Minnesota did not select EPA's chosen control technology for BART. MPCA finds these findings to be contrary to case law, citing *Virginia v. EPA*, 108 F.3d 1397, 1406 (D.C. Cir. 1997), without explanation.

**Response:** It is not clear why MPCA commented on statements in the June 12, 2012, final action regarding prospective EPA actions, because the actual actions as proposed on August 15, 2012, and February 6, 2013, were available for comment and were more indicative of EPA's actions than its prior anticipatory statements. In any case, MPCA is misrepresenting EPA's June 12, 2012, statements. Nowhere in this notice did EPA "simply state that Minnesota did not select EPA's chosen control technology." Instead, EPA noted the "significant information about additional

NO<sub>x</sub> controls [that it received] in comments on [the January 25, 2012] proposed rulemaking, [prompting EPA to defer action to allow] EPA time to evaluate properly additional potential emission controls for the taconite facilities."

As explained in the supplemental proposed disapproval, EPA's subsequent evaluation led to its view that: 1) Minnesota and Michigan did not properly evaluate BART for NO<sub>x</sub> and SO<sub>2</sub> for taconite plants because they dismissed technically and economically feasible control technologies without adequate justification; 2) Minnesota and Michigan adopted a "control technology" (GCP) for NO<sub>x</sub> that was not defined or properly analyzed; 3) Minnesota did not demonstrate that its emission limits in fact represented GCP, while Michigan did not include NO<sub>x</sub> emission limits in its SIP at all; and 4) Minnesota failed to make its emission limits appropriately enforceable. MPCA notably does not contest EPA's view that low NO<sub>x</sub> burners and FGD are more effective at reducing emissions than GCP. More precisely, MPCA does not argue that GCP is either equivalent to or better than these technologies. That is, Minnesota makes no argument that its chosen technology can equally well be considered the best available. Thus, the failure of the states to follow EPA's implementing regulations or the BART Guidelines when selecting BART for these facilities had the practical



consequence of the SIPs requiring less than BART. Finally, *Virginia v. EPA*, to the extent it is relevant here, does not instruct EPA to approve SIPs that fail to meet CAA requirements.

**Comment:** EPA correctly states that Minnesota essentially re-opened its 2009 BART determinations for the affected electric generating units (EGUs). MPCA finds that an extensive administrative record compiled by EPA in support of revised action supported re-opening the EGU BART determinations. MPCA finds in contrast that it lacked an adequate administrative record to justify a re-opening of the taconite BART determinations.

**Response:** At issue here is whether MPCA should have more thoroughly considered evidence indicating the applicability and effectiveness of low NO<sub>x</sub> burners. This comment suggests that MPCA undertook a partial consideration of this evidence in order to evaluate whether a more thorough review and "re-opening" of its BART determinations was necessary. However, as has been elaborated several times in the responses above, EPA disagrees that MPCA's partial consideration of information regarding the technical feasibility of low NO<sub>x</sub> burners was reasonable or sufficient to satisfy the States' obligations under the CAA and Regional Haze Rule to evaluate all technically feasible control options when selecting BART.

**Comment:** MPCA closes its comments by recommending several modifications to the FIP.

**Response:** These comments are pertinent to a completed rulemaking promulgating the FIP and are not germane to this rulemaking regarding disapproval of Minnesota's regional haze SIP.

### **III. What Action is EPA Taking?**

EPA is disapproving in part the Michigan and Minnesota regional haze SIPs for failure to satisfy BART requirements for NO<sub>x</sub> and SO<sub>2</sub> emissions from the subject taconite facilities within these states. Specifically, EPA is disapproving in part the Michigan and Minnesota regional haze SIPs for failure to comply with 40 CFR 51.308(e)(1)(ii)(A), which requires BART determinations "to be based on an analysis of the best system of continuous emission control technology" that, among other things, "take[s] into consideration the technology available." EPA is also disapproving in part the Michigan regional haze SIP for failure to comply with 40 CFR 51.301 and 51.308(e), which require BART determinations to be in the form of enforceable "emission limitations" contained in SIPs.

For NO<sub>x</sub> emissions, Minnesota's SIP failed to "take into consideration the technology available" because it summarily dismissed a technically feasible control technology, low NO<sub>x</sub>

burners, without adequate explanation. Furthermore, by selecting an unidentified set of practices as BART instead of low NO<sub>x</sub> burners, Minnesota's SIP failed to require the emission reductions associated with "the best system of continuous emission control technology available." For SO<sub>2</sub> emissions, Minnesota's SIP also failed to make BART determinations for certain facilities "based on an analysis of the best system of continuous emission control technology" because Minnesota did not reasonably consider the "costs of compliance" when it improperly rejected the most stringent control option, FGD.

Similarly, Michigan's SIP also failed to "take into consideration the technology available" because it too summarily dismissed low NO<sub>x</sub> burners as a technically infeasible control option. Also, by selecting an unidentified set of practices as BART instead of low NO<sub>x</sub> burners, Michigan's SIP failed to require the emission reductions associated with "the best system of continuous emission control technology available." Moreover, unlike Minnesota's SIP, Michigan's SIP did not include "emission limitations representing BART" for its Tilden facility. While Michigan commented that it has since issued a permit establishing NO<sub>x</sub> emission limits for the Tilden facility, neither these limits nor any other emission limits were included in the SIP as required. Finally, for SO<sub>2</sub> emissions, Michigan's SIP also

failed to make BART determinations for certain facilities "based on an analysis of the best system of continuous emission control technology" because Michigan did not reasonably consider the "costs of compliance" when it improperly rejected the most stringent control option, FGD.

A discussion of how this action relates to the taconite FIP that was published on February 6, 2013 is discussed in the February 6, 2013 supplemental proposed disapproval.

#### **IV. Statutory and Executive Order Reviews.**

##### **Executive Order 12866: Regulatory Planning and Review**

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is not a "significant regulatory action" and, therefore, is not subject to review by the Office of Management and Budget.

##### **Paperwork Reduction Act**

This rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

##### **Regulatory Flexibility Act**

This action merely disapproves state law as not meeting Federal requirements and imposes no additional requirements beyond those imposed by state law. Accordingly, the Administrator certifies that this rule will not have a

significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*).

#### **Unfunded Mandates Reform Act**

Because this rule disapproves pre-existing requirements under state law and does not impose any additional enforceable duty beyond that required by state law, it does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4).

#### **Executive Order 13132: Federalism**

This action also does not have Federalism implications because it does not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999). This action merely disapproves a state rule, and does not alter the relationship or the distribution of power and responsibilities established in the CAA.

#### **Executive Order 13175: Consultation and Coordination With Indian Tribal Governments**

This rule also does not have tribal implications because it will not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes, as specified by Executive Order 13175 (59 FR 22951, November 9, 2000).

**Executive Order 13045: Protection of Children From Environmental Health and Safety Risks**

This rule also is not subject to Executive Order 13045 "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997), because it disapproves a state rule.

**Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use**

Because it is not a "significant regulatory action" under Executive Order 12866 or a "significant energy action," this action is also not subject to Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355, May 22, 2001).

**National Technology Transfer Advancement Act**

In reviewing state submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA.

In this context, in the absence of a prior existing requirement for the state to use voluntary consensus standards (VCS), EPA has no authority to disapprove a state submission for failure to use VCS. It would thus be inconsistent with applicable law for EPA, when it reviews a state submission, to use VCS in place of a state submission that otherwise satisfies the provisions of the CAA. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply.

Under section 307(b) (1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by [INSERT DATE 60 DAYS FROM DATE OF PUBLICATION OF THIS DOCUMENT IN THE FEDERAL REGISTER]. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. See CAA section 307(b) (2) .

**List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control,  
Incorporation by reference, Intergovernmental relations,  
Nitrogen dioxide, Particulate matter, Reporting and  
recordkeeping requirements, and Sulfur oxides.

Dated: September 11, 2013

Susan Hedman,  
Regional Administrator, Region 5.



40 CFR part 52 is amended as follows:

**PART 52--APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS**

1. The authority citation for part 52 continues to read as follows:

**Authority:** 42 U.S.C. 7401 *et seq.*

2. Section 52.1183 is amended by adding paragraph (o) to read as follows:

**§ 52.1183 Visibility protection.**

\* \* \* \* \*

(o) The requirements of section 169A of the Clean Air Act are not met because the regional haze plan submitted by the state on November 5, 2010, does not meet the requirements of 40 CFR 51.308(e) with respect to NO<sub>x</sub> and SO<sub>2</sub> emissions from Tilden Mining Company L.C. of Ishpeming, Michigan. The requirements for this facility are satisfied by complying with § 52.1183(k-n)

3. Section 52.1236 is amended by adding paragraph (d) to read as follows:

**§ 52.1236 Visibility protection.**

\* \* \* \* \*

(d) The requirements of section 169A of the Clean Air Act are not met because the regional haze plan submitted by the state on December 30, 2009, and on May 8, 2012, does not meet the requirements of 40 CFR 51.308(e) with respect to NO<sub>x</sub> and SO<sub>2</sub>

emissions from United States Steel Corporation, Keetac of Keewatin, Minnesota; Hibbing taconite company of Hibbing, Minnesota; United States Steel Corporation, Minntac of Mountain Iron, Minnesota; United Taconite, LLC of Forbes, Minnesota; ArcelorMittal Minorca Mine, Inc. near Virginia, Minnesota; and Northshore Mining Company-Silver Bay of Silver Bay, Minnesota. The requirements for these facilities are satisfied by complying with the requirements of § 52.1235.

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